

## WHAT IS CLAIMED IS:

1. A method for controlling a plant to achieve desired operating results, comprising the steps of:

measuring select operating parameters of the plant;

providing a plurality of transforms that define select actions to be taken by an

operator of the plant as a function of the measured select operating parameters,

wherein each of the transforms is associated with a portion of the measured select

operating parameters and with a predetermined condition of the plant that is a

function of the portion of the measured select operating parameters, and each of the

transforms has embedded therein intuitive actions taken by actual operators of the

plant for the associated condition, and wherein each of the transforms is operable to

determine if a the predetermined and associated condition exists in the plant, which would warrant the associated action being taken;

processing the measured select operating parameters through the associated

transforms to determine for each of the transforms if the associated condition is

present; and

providing to a user an indication that the condition associated with any of the transforms is present and for which transform; and

suggesting to the user the action to be taken for the associated indication.

2. The method of Claim 1, and further comprising the step of controlling the operation of the plant in accordance with one of the suggested actions.

3. The method of Claim 1, wherein the step of the providing an indication comprises activating a panel display to provide a visual display to the user which is able to indicate to the user which of the transforms had its conditions met.

4. The method of Claim 3, wherein the step of suggesting comprises generating a report to the user defining suggested control steps to be taken for the operation of the plant.

5. The method of Claim 1, wherein the transforms comprise a set of rules determined by a history of operation of the plant to achieve in part the desired operating results.

6. The method of Claim 5, wherein the step of providing the transforms comprises:

assembling a history of various observations of the operation of the plant and actions to be taken that have been observed to achieve a move of the plant toward the desired operating results;

defining a decision tree that has embedded therein measurable variables of the plant and/or inputs to the plant and logic steps to define each of the assembled observations; and

fixing the decision tree path into a fixed rule as a transform operating on the associated measurable variables of the plant and/or inputs to the plant.

7. The method of Claim 1, wherein one of the select operating parameters of the plant is a commercial operating parameter that defines the commercial operation of the plant.

8. The method of Claim 7, wherein the plant is a power plant and the commercial aspect constitutes the cost of generating power.